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ABSTRACT

Findings from several recent studies suggest that the gender, cultural background and age of observers may influence their perception and evaluation of nonverbal communication. There is ample evidence to warrant using raters of only one sex (preferably female) and only one cultural background when the rating task involves decoding nonverbal communication. An alternate strategy would be to include rater gender or ethnicity as an independent variable. This paper discusses the conditions under which characteristics of raters may influence the decoding of nonverbal messages and describes strategies for overcoming these problems. Since many studies utilize observers or raters to assess nonverbal communication, without taking into account possible systematic differences in their responses to the task, significant interactions between rater characteristics and the independent variables under investigation frequently may go undetected. (Author)

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**The Eye of the Beholder: Methodological
Considerations When Observers Assess
Nonverbal Communication**

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Abstract

Findings from several recent studies suggest that the gender, cultural background and age of observers may influence their perception and evaluation of nonverbal communication. There is ample evidence to warrant using raters of only one sex (preferably female) and only one cultural background when the rating task involves decoding nonverbal communication. An alternate strategy would be to include rater gender or ethnicity as an independent variable.

This paper discusses the conditions under which characteristics of raters may influence the decoding of nonverbal messages and describes strategies for overcoming these problems. Since many studies utilize observers or raters to assess nonverbal communication, without taking into account possible systematic differences in their responses to the task, significant interactions between rater characteristics and the independent variables under investigation frequently may go undetected.

The Eye of the Beholder: Methodological Considerations
When Observers Assess Nonverbal Communication

Many studies use observers or raters to assess the nonverbal behaviors of interactants (e.g. Chaikin, Sigler, & Derlega, 1974; Zuckerman, Hall, DeFrank, & Rosenthal, 1976; Word, Zanna, & Cooper, 1974; Buck, Miller, & Caul, 1974; Ekman, Friesen, & Ellsworth, 1972; Feldman & Prohaska, in press; Woolfolk, Abrams, Abrams, & Wilson, in press). Usually precautions are taken to insure that the coders are assessing the nonverbal behaviors of interest in the same fashion, using identical standards of measurement. These precautions include extensive training in the particular coding system, discussion of categories to insure common definitions, practice with stimulus materials similar to those which will be used in the actual experiment, and determination of observer reliability or agreement (Frick & Semmel, 1978). But the decoding of nonverbal communication may require additional precautions. Ample research is now available to demonstrate that such individual characteristics as gender, cultural background and age may influence the process of perceiving and evaluating nonverbal behaviors. The objectives of this paper are to: a) briefly review the research on individual differences in the decoding of nonverbal communication and b) explore the impact these differences might have on research in nonverbal communication.

Coder Characteristics and the Decoding Process

The following briefly reviews selected studies of gender, cultural background and age differences in the perception and

evaluation of nonverbal behavior.

Gender Differences. In a recent review of 75 studies of decoding nonverbal cues, Hall (1978) found an advantage for female receivers, especially when both visual and vocal cues were presented simultaneously for decoding. This advantage for female decoders held, regardless of the age of the decoder or the sex and age of the stimulus person(s). In general, females appear to be more accurate judges of nonverbally communicated experience or information, both when the stimuli are posed (e.g. Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979) and when they are spontaneous, unposed reactions (e.g. Buck, Miller & Caul, 1974; Woolfolk, Abrams, Abrams & Wilson, in press). While the trend points to an advantage for female decoders, some studies have revealed no gender differences (e.g. Archer & Akert, 1977; Buck, 1976) but very few have demonstrated male superiority. In fact, Hall concluded that the magnitude of the gender effect favoring women has increased with time, probably as a result of the more precise assessment instruments and the more powerful data analysis procedures used by the more recent studies (Hall, 1978).

There has been little research on the conditions under which one sex might be more accurate than the other in decoding nonverbal communication. Hall (1978) does suggest that the female advantage is especially strong when both visual and vocal cues are presented simultaneously. There is some indication that women look more at others than men do (Argyle & Cook, 1976) and may thus be more sensitive to visual information. It is possible that women can therefore add the information from the visual channel to information they have gained from the vocal channel,

basing their judgments on more data while men are less attentive to visual cues and thus have less information on which to base judgments. As La France and Mayo (1978) point out, the notion that women use visual cues is supported indirectly by a study in which women found conversation increasingly more difficult than men when the females' partners were increasingly obscured, by dark glasses, a slotted screen, and a one-way mirror (Argyle, Lalljee, & Cook, 1968).

If the decoding of a silent videotape is the task given to coders and if women are more accomplished than men at extracting information from the visual channel, we would expect more sensitive and accurate decoding of nonverbal communication by the women. Furthermore, Davis and Tune (1969) suggest that women are more accurate than men in tasks which require sustained visual attention, such as the viewing of many videotape segments, slides, or pictures. When the stimulus materials present interpersonal interactions and some element of social memory may be required to make accurate judgments, the findings of Mazanesc and McCall (1975) suggest an advantage for women. These researchers found that women were more accurate than men in making judgments from memory after viewing a videotape of social encounters.

Taken together, these findings suggest that the more information available, especially from the visual channel, the more accurate women are likely to be in decoding nonverbal communication and the greater the potential discrepancy between male and female accuracy in decoding. It is possibly that this discrepancy can be eliminated by training males to monitor the visual display more carefully. Even if initial comparability between

male and female coders is established in visual monitoring and consequent decoding accuracy, research provided little information about how to maintain this comparability throughout the entire decoding task. It seems likely that coders would drift back to more characteristic styles of attending (with the related decreasing accuracy for men) if numerous spot checks, retraining sessions, or practice sessions were not instituted. In any event these issues could be examined empirically.

Culture and Ethnicity. Like verbal language, the language of nonverbal communication varies from one culture and nationality to another. A very few cross-culturally shared facial expressions have been identified (Ekman, et al. 1972, Izard, 1969; Eibl-Eibesfeldt, 1972). But cultures differ greatly in their display rules (Ekman & Friesen, 1975), the standards defining which emotions should be displayed in given situations and how to display those emotions. For example, cultures vary in their rules for indicating respect (Byers & Byers, 1972; Hall, 1974) and status (Taylor, 1974; Morsbach, 1973). Many Black children are taught to avert their eyes when speaking to an adult as a sign of respect while White children are often told to "look at me when I'm talking to you."

In addition to having different nonverbal rules for showing respect, cultures vary in the rules for indicating attentiveness (La France & Mayo, 1976). There is evidence that White listeners show attention by maintaining eye contact, nodding their head while simultaneously saying "uhuh" or "umhm". Black listeners are less likely to maintain eye contact and show attention for one culture might be misinterpreted by members of another

culture. This mismatch of rules for nonverbal expression has implications for research in classrooms especially when observers use high inference coding systems to record the behavior of teachers and students.

The fact that various ethnic and cultural groups have different rules for displaying nonverbal behavior suggests that the most accurate decoders of the nonverbal communication of a member of a particular ethnic or cultural group would be other members of the same group. There is some evidence in support of this notion in studies of differential teacher communication to same and different race students (Feldman, Note 2; London, Note 4; Feldman & Donohue, 1978). While the importance of using coders from the same racial group as the subjects may seem obvious, a similar caution may be appropriate when the cultural background of subjects and coders is less distinctive. For example Seaford (1975) has identified characteristic differences in the facial expressions of Americans from the Southern United States.

Age Differences. Buck (1977) suggests that between the ages of 4 and 6 in our culture, boys may learn to inhibit the overt expression of emotion and thus become less accurate communicators of affect while the spontaneous nonverbal behavior of girls continues to accurately reflect their emotional states. In terms of decoding nonverbal communication, girls appear to be superior to boys (Hall, 1978). Girls' accurate use of proximity and eye contact to judge attraction between individuals develops earlier than this ability in boys (Post & Hetherington, 1974). Older children appear to decode adult vocally expressed

more accurately than younger children (Dimitrovsky, 1964), and young children seem to be able to successfully decode a greater number of nonverbally communicated emotions than they can accurately produce (Odom & Lemond, 1972).

Mayo and LaFrance (1978) suggest that the child's development is associated with:

a greater range in the nonverbal repertoire, greater integration and coordination of communications channels, and greater differentiation of nonverbal behavior according to social context (p. 213).

Young children appear to be more accurate in judging the nonverbal behavior of familiar people such as their mothers (Abramovich, 1977). Increasing age brings increased sensitivity to facial and vocal expression (Mayo and LaFrance, 1978).

Several studies point to a difference between adults and children in the encoding and decoding processes. Children appear to decode incongruent communications differently from adults (Bugental, Kaswan & Love, 1970). While adults rely more on the nonverbal channels of facial expression and voice tone than on the words said to determine the meaning of incongruent communications, children tend to listen to the words and the voice tone, but attend less to facial expression to decipher incongruent communications. Mayo and LaFrance (1978) suggest that young children may be unable to integrate information from several channels because they are not yet able, in Piaget's terms, to decentrate or focus on several dimensions of a situation simultaneously.

There are two reasons to be interested in differences

between adult and child decoding of nonverbal behavior. Studies of adult-child communication often use adult coders to assess the nonverbal behavior of children or use adults to judge the nonverbal behavior of the adult interactant, assuming the child involved in the interaction is perceiving and responding to the same cues that the adult coder has identified. It has not been demonstrated that: a) Adults are the most accurate judges of child nonverbal communication, or b) adult perceptions of the behavior of an adult stimulus person necessarily correspond to the child / subject's perception. Two studies have pointed out differences in the way adults and children view nonverbal communication. Related to point (a) above, Feldman and Allen (Note 3) found that third- and sixth-grade students were more accurate judges than adults of the nonverbal communication of other third- and sixth-graders.

Point (b) above could be quite important. Researchers have assumed to a certain degree that the teacher behavior as perceived and mapped by the adult investigator is the behavior to which the child responds. The child may have a very different view of the teacher's behavior, particularly of the teacher's nonverbal behavior. Nonverbal cues which have one meaning to the adult may have a very different meaning to the child or be overlooked altogether. Clark and Creswell (1978) provide some support for this possibility.

Implications for the Use of Coders

Several implications of the gender, cultural background, or age differences in the decoding of nonverbal behavior have already been mentioned. If, in fact, individuals bring very different skills, styles, and expectations to the task of making

judgments about nonverbal behaviors, then all the usual training procedures and precautions for establishing observer reliability or agreement before the coding begins become even more critical when the behaviors to be coded are nonverbal. In addition frequent retraining, practice, and spot checking for agreement are essential. If both male and female coders are used, they should probably work in cross-sex pairs, since high observer agreement would not detect systematic differences among observers by gender if the pairs compared were the same sex.

A second possibility is to include coder sex as a variable in the study so that differences between male and female coders can be identified and prevented from masking the effects of the other variables under investigation. This was the approach taken by Woolfolk et al. (in press). In this investigation pooling the data from male and female coders indicated no main effects for the variables under investigation. However one of the independent variables interacted with coder sex such that female raters were able to accurately discriminate differences among the subjects by experimental conditions, while male coders were unable to discriminate.

Besides indicating the need for caution and thoughtful planning in using coders to assess nonverbal communication, the findings discussed in this paper raise questions which could be investigated in further research. A few of these questions are: How much and what kind of training is required to insure that coders of different sex or cultural background are comparable in their assessment of nonverbal behavior? Will coders drift back during the decoding task to characteristic ways of viewing

nonverbal behaviors? If so, how can this be prevented? Are adults appropriate judges of stimulus materials that will be used to study children's perception of nonverbal behavior? These and many other questions invite a systematic investigation.

Reference Notes

1. Erickson, F. Talking down and giving reasons: Hyper-explanation and listening behavior in inter-racial interviews. Paper presented at the International Conference on Non-Verbal Behavior, Toronto, Canada, 1976.
2. Feldman, R. Race of student and nonverbal behavior of teachers. Paper presented at the meeting of the American Educational Research Association. San Francisco, April, 1976.
3. Feldman, R. S., & Allen, V. L. Developmental trends in decoding of nonverbal behavior. Paper presented at the Annual Meeting of the Eastern Psychological Association, April, 1974.
4. London, F. Black and white observers' perceptions of teacher verbal and nonverbal behaviors. Paper presented at the meeting of the American Educational Research Association, San Francisco, April, 1976.

References

- Abramovich, R. Children's recognition of situational aspects of facial expression. Child Development, 1977, 48, 459-463.
- Archer, D. & Akert, R. M. Words and everything else: Verbal and nonverbal cues in social interaction. Journal of Personality and Social Psychology, 1977, 35, 443-449.
- Argyle, M., & Cook, M. Gaze and mutual gaze. Cambridge, England: Cambridge University Press, 1976.
- Argyle, M., Lalljee, M., & Cook, M. The effects of visibility on interaction in a dyad. Human Relations, 1968, 21, 3-17.
- Buck, R. Nonverbal communication of affect in preschool children: Relationships with personality and skin conductance. Journal of Personality and Social Psychology, 1977, 35, 225-236.
- Buck, R. A test of nonverbal receiving ability: Preliminary studies. Human Communication Research, 1976, 2, 162-171.
- Buck, R., Miller, R. E., & Caul, W. F. Sex, personality and physiological variables in the communication of emotion via facial expression. Journal of Personality and Social Psychology, 1974, 30, 587-596.
- Bugental, D. E., Kaswan, J. W., & Love, L. R. Perception of contradictory meanings conveyed by verbal and nonverbal channels. Journal of Personality and Social Psychology, 1970, 16, 647-655.
- Byers, P., & Byers, H. Nonverbal communication and the education of children. In C. B. Cazden, V. P. John, & D. Hymes (Eds.), Functions of language in the classroom. New York: Teachers College Press, 1972.

- Chaikin, A., Sigler, E., and Derlega, V. Nonverbal mediators of teacher expectancy effects. Journal of Personality and Social Psychology, 1974, 30, 144-149.
- Clark, B. M. & Creswell, J. L. Participant versus non-participants perception of teacher nonverbal behavior. The Journal of Classroom Interaction, 1978, 14, 28-38.
- Davies, D. R. & Tunc, G. S. Human vigilance performance. New York: American Elsevier, 1969.
- Dimitrovsky, L. The ability to identify the emotional meaning of vocal expressions at successive age levels. In J. R. Davitz (Ed.), The communication of emotional meaning. New York: McGraw-Hill, 1964.
- Eibl-Eibesfeldt, I. Similarities and differences between cultures in expressive movements. In R. A. Hinde (Ed.), Non-verbal communication. London: Cambridge University Press, 1972.
- Ekman, P., & Friesen, W. V. Unmasking the face. Englewood Cliffs, N. J.: Prentice-Hall, 1975.
- Ekman, P., Friesen, W. V., & Ellsworth, P. C. Emotion in the human face. New York: Pergamon, 1972.
- Feldman, R. S. & Donohue, L. F. Nonverbal communication of affect in interracial dyads. Journal of Educational Psychology, 1978, 70, 979-987.
- Feldman, R. S. & Prohaska, J. The student as pygmalion: Effect of student expectancy on the teacher. Journal of Educational Psychology, in press.
- Frick, T. & Semmel, M. I. Observer agreement and reliabilities of classroom observation measures. Review of Educational Research, 1978, 48, 157-184.

- Hall, E. T. Handbook for proxemic research. Washington, D.C.: Society for the Anthropology of Visual Communication, 1974.
- Hall, J. Gender effects in decoding nonverbal cues. Psychological Bulletin, in press.
- Izard, C. E. The emotions and emotion constructs in personality and culture research. In R. B. Cattell (Ed.), Handbook of modern personality theory. Chicago: Aldine, 1969.
- LaFrance, M., & Mayo, C. Racial differences in gaze behavior during conversation. Journal of Personality and Social Psychology, 1976, 33, 547-552.
- LaFrance, M., & Mayo, C. Moving bodies: Nonverbal Communication in Social Relationships. Monterey, Calif.: Brooks/Cole, 1978.
- Mayo, C., & LaFrance, M. On the acquisition of nonverbal communication: A review. Merrill-Palmer Quarterly, 1978, 24, 213-228.
- Mazanec, N., & McCall, G. J. Sex, cognitive categories, and observational accuracy. Psychological Reports, 1975, 37, 987-990.
- Morsbach, H. Aspects of nonverbal communication in Japan. Journal of Nervous and Mental Disease, 1973, 157, 262-277.
- Odom, R. and Lemond, C. Developmental differences in the perception and production of facial expressions. Child Development, 1972, 43, 359-369.
- Post, B., & Hetherington, E. M. Sex differences in the use of proximity and eye contact in judgments of affiliation in preschool children. Developmental Psychology, 1974, 10, 881-889.

- Rosenthal, R., Hall, J. A., DiMatteo, M. R., Rogers, P. L., & Archer, D. Sensitivity to nonverbal communication: The PONS test. Baltimore: The Johns Hopkins Press, in press.
- Seaford, H. W., Jr. Facial expression dialect: An example, In A. Kendon, R. M. Harris, & M. R. Key (Eds.), Organization of behavior in face-to-face interaction, The Hague: Mouton, 1975.
- Taylor, H. M. American and Japanese nonverbal communication. In J. V. Neustupny (Ed.), Papers in Japanese Linguistics 3. Melbourne: Monash University, 1974.
- Woolfolk, A. E., Abrams, L., Abrams, D., & Wilson, G. T. The nonverbal communication of anxiety: The impact of beliefs on nonverbal behavior. Environmental Psychology and Non-verbal Behavior, in press.
- Word, C. O., Zanna, M. P., & Cooper, J. The nonverbal mediation of self-fulfilling prophecies in interracial interaction. Journal of Experimental Social Psychology, 1974, 10, 109-120.
- Zuckerman, M., Hall, J. A., DeFrank, R. S., & Rosenthal, R. Encoding and decoding of spontaneous and posed facial expressions. Journal of Personality and Social Psychology, 1976, 34, 966-977.